

July 2, 2004

Staci Pereira  
Planning Department  
City of Milpitas  
455 E. Calaveras Blvd.  
Milpitas, CA 95035-5411

**Subject: Milpitas Senior and Family Project Application  
South Main & Montague Expressway**

Dear Ms. Pereira:

USA Properties Fund, Inc. (USA) is requesting that the entitlement application for our proposed project be revised in order to seek a Planned Unit Development in addition to a Conditional Use Permit. The specific design information previously submitted will not change as a result of this request. Our intent is to achieve an overall density for the proposed site of no more than 40 dwelling units per acre. This density would be distributed between 120 units of senior affordable housing on the northerly portion and no more than 84 units of attached housing on the southern portion of the site.

The proposed project will still consist of two separate communities; a senior affordable community and a general occupancy attached housing community. The senior affordable housing component will be built first as Phase I and consist of 120 one and two bedroom rental units within two buildings. There are 104 one-bedroom units that are approximately 620 SF in size, and 16 two-bedroom units of approximately 950 SF in size. The two buildings are all 5 stories total, with 4 stories of units over an at-grade parking podium. The senior component will feature a recreation building that will contain a lounge, multi-purpose room, kitchen, and offices, and will provide access to an outdoor spa and recreation patio. Proposed rents would be below market rates. Residents would be 55 years and older and would need to meet income restriction requirements. In the 4,000 senior units currently operated by USA Properties Fund, the typical renter profile is a single female 70 to 75 years of age, but couples of the same age group and single males are not uncommon. USA plans on starting construction of Phase I in Spring of 2005.

The general occupancy component would be the second phase of the project and is proposed to start at a later date. The design is still more preliminary in nature than the senior community, but would be reflective of the style and architecture of the senior community with the intent of the two projects looking like alternative products of a single development. This strategy allows the benefits of a quieter, more subdued living environment for the senior residents while still appearing to the neighborhood as a single, cohesive development. Initial designs for the general occupancy community call for 84 units in three separate buildings, all three-story walk-up in nature with at-grade direct access parking garages. There are currently 24 one-bedroom units ranging from 686 SF to 942 SF, 51 two-bedroom units ranging from 948 SF to 1,284 SF, and 9 three-bedroom units ranging from 1,265 SF to 1,305 SF. The family community will also feature its own recreation building and an outdoor recreation deck with a pool. The typical resident is expected to be mostly professionals both without children and with one to two small children, and empty nesters.

A conditional use permit is sought for this project to reduce the number of required parking spaces for the senior project. The parking reductions are requested to bring the number of parking spaces down to the statistically established number we expect to be utilized by this project based on our experience with over 4,000 affordable senior units across California and Nevada.

The project site is currently used as a commercial truck repair and maintenance facility (All-Cal) on the southern parcel and a commercial tile manufacturing plant (Handcraft Tile) on the northern parcel, both of which are active businesses. Both parcels are flat with no natural topographic features. The soil is stable and the topsoil layer is a mix of broken asphalt pavement and rock aggregate that has been compacted by decades of commercial vehicle and tractor-trailer use. No natural plants or wildlife exist, as both properties are active commercial enterprises. There are no cultural, historical, or scenic aspects of the site. The southern parcel has a small office building and a garage building used to perform mechanical work on the tractor-trailers. There are also a number of temporary containers used for storage and operations. The northern parcel has a building that visibly appears to be one or two phases of expansion of the original building over the years. The buildings are used for the manufacturing and sale of ceramic tile.

Four other properties and two roads surround the site. South Main Street fronts the site to the west and is the primary access to both communities. Montague Expressway bounds the site to the south for the entire length of property frontage. For most of the eastern boundary there exists property once used as a concrete manufacturing facility called Quick-Crete, that is currently occupied by a single vacant building that shares a 0-lot line with the proposed project and an empty, weed filled parking lot. A small portion of the northeastern boundary is adjacent to the Southern Pacific Railroad right of way. Immediately north of the project site is the Saf Keep mini-storage that shares a 0-lot line with the entire northern boundary of the proposed project. A Shell fuel station and car wash that fronts both Montague Expressway and South Main Street bounds the southwestern corner of the project. A Jack In The Box restaurant on the northwest quadrant of the site interrupts the continuity of the existing property. Both the Jack In

The Box and the Shell station have existing parking and drive aisles immediately adjacent to the project and none of the properties share a barrier wall, although chain link fence does exist in some places, and a masonry wall approximately 3-feet high surrounds the Shell station. All of the surrounding properties, except Southern Pacific Railroad, contain single story commercial buildings and parking lots. All but the former Quick-Crete and Southern Pacific properties to the east are currently active commercial businesses. None of these properties appear to contain any significant natural vegetation or wildlife. They also do not appear to contain any cultural, historical, or scenic aspects of note.

USA Properties is pleased to be able to propose this project to the residents and leaders of the City of Milpitas. We believe the project will bring both economic and aesthetic benefits to the City and we look forward to working with you to bring this project to fruition.

Sincerely,  
USA Properties Fund, Inc.

Milo L. Terzich, P.E.  
Development Manager

## **USA PROPERTIES FUND**

### **TYPICAL ACTIVE SENIOR HOUSING PROGRAM**

The principals of USA Properties Fund, Inc. have been involved in the development and operation of active senior housing programs since the late 1970's. At that time, they recognized that the rapid growth of the senior population in the United States and the resultant need for seniors housing was not a phenomenon that would subside.

The housing needs for both "young" seniors and "mature" seniors represent steps along the housing continuum. USA Properties' apartments strive to fulfill the present and future housing needs of the "young" and somewhat "mature" senior (55-80) earning on average no more than 60% of median income.

Since the principals of USA pioneered the development of active seniors apartments, government agencies at every level and private developers of every size have responded to the need of quality housing for seniors of all income levels. With the development of over 3800 units, USA's principals continually draw upon their extensive experience to re-define their formula to address the needs and desire of today's active seniors. The core of the program, however remains unchanged: 1) build value oriented senior apartment homes, 2) develop a community of true, active, and involved residents, 3) preserve the independence and privacy of the active senior, and 4) provide housing communities and units specially designed for the senior resident.

USA's apartment home communities provide an enriched environment typically unavailable to senior households of modest means. This housing alternative attracts the community minded senior looking to enhance their life with security, beauty, meaning and of course, community.

USA generates not only services, but mutual attention and care for needs, desires, and aspirations of our residents.

On site management is intimately involved with the circumstances, personalities and needs of residents. Living closely and cooperatively in an enclosed environment creates mutual caring for each other in cooperation with staff.

USA's communities are managed for the long term along the following guidelines:

## **A. Community Life**

Community Life is typically facilitated as follows:

### **1. Social - Recreation Program offerings (a partial list):**

- Welcome Committee
- Choral groups
- Games: Bingo, Bunko, Bridge (etc.)
- Holiday celebration and theme parties
- Potluck parties, hospitality tables(coffee, juice, cookies etc.)
- Community Newsletter
- Exercise
  - Walking club
  - Aerobics
  - Dancing
- Onsite Lending Library
  - Books
  - Books on Tape
  - Videos
  - Bookmobile visitation where available
- Education
  - Writing groups
  - Travel presentations
- Special Excursions
  - Local attractions
  - Museums
- Legal Services & Accounting
  - Legal service references, free and other
  - Notary Services as needed
  - Tax preparation references, AARP/other

### **2. Health**

- Flu shot clinics
- Blood pressure clinics
- Red Cross classes
- Wellness classes
- Nutrition Classes
- CPR-Emergency procedures
- Hearing Screenings
- In-house homemaker referrals

3. **Volunteer Programs**

On property: Social Committees  
Food related Committees  
Education Committees  
Recreation Committees  
Building Captains

Community: Facilitate participation in community based volunteer efforts  
(e.g. museum docent, after school tutoring, hospitality aides, voter services)

4. **Civic Activities**

Make clubhouse available for selected civil events: e.g. polling place, occasional Chamber of Commerce meetings, candidate forums, and AARP chapter meetings.

5. **Personal Beauty**

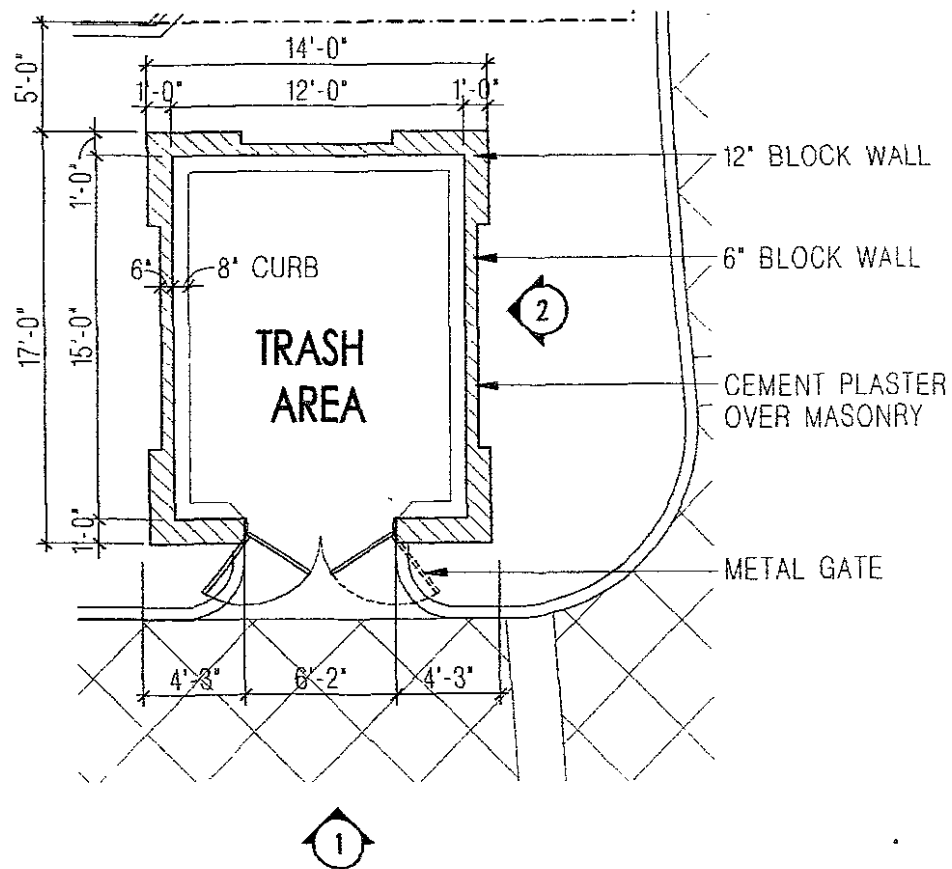
Arrange for periodic site visits of beauticians that provide:

- Pedicures
- Hair care
- Nails

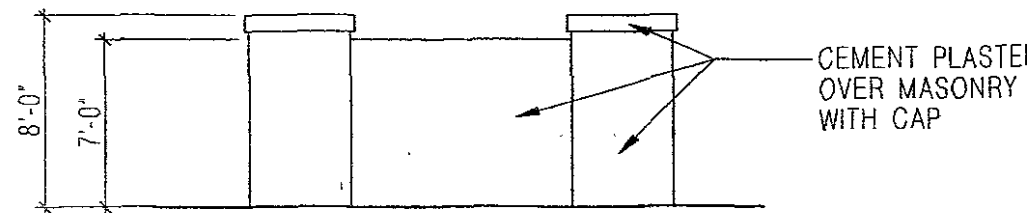
B. **Managing Aging in Place** - Aging in place issues for USA Senior Apartments will be managed as follows:

Problems are addressed daily, as observed by manager and/or fellow residents when identified through routine needs assessment. The close community calls rapid attention to any problems and make prompt attention possible before a problem can grow.

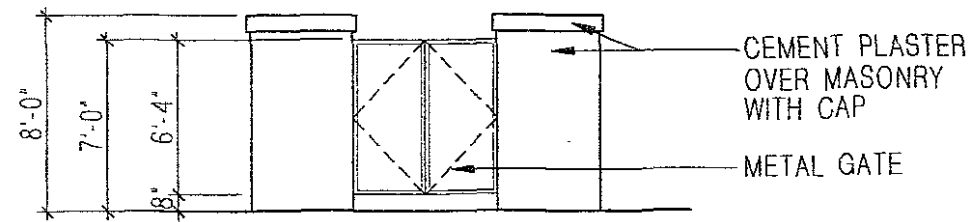
Should the problem be beyond the scope of family and management alone, a social service coordinator can make referrals to appropriate sources i.e. homemaker, meals, etc.



**TRASH AREA PLAN**  
SCALE: 1/8" = 1' - 0"



**ELEVATION 2**  
SCALE: 1/8" = 1' - 0"



**ELEVATION 1**  
SCALE: 1/8" = 1' - 0"



1631 Sixteenth Street  
Santa Monica, CA 90404  
T 310.396.6661  
F 310.396.6441

## GMP Architects

## FAX TRANSMITTAL

date: 4-28-04  
regarding: Milpitas Senior  
Apts. Solid Waste Management  
proj. no: 59303  
via: Fax & Email

to: USA Properties Fund  
att: Milo Terzich  
fax: 916-773-5866  
email: mterzich@usapropfund.com

Transmitted: cover sheet and 0 page(s)

Dear Milo,

During October and November of 2003, Weislie Stobbe (408-586-3352) from the City of Milpitas Solid Waste Section, and I coordinated (with some feedback from BFI) the trash and recycling removal.

The results are described below:

- Each building is equipped with one trash chute that terminates in a trash room located within the enclosed garage.
- Each trash chute room (one located on each floor) is large enough to accommodate a 24" x 24" x 36"H recycling cart. Once a day, the project's maintenance personnel will empty the carts into the bin in the trash/recycling room located within the enclosed garage.
- The BFI collection dates and routes are predetermined and fixed. On the designated date, before the arrival of BFI, the project's maintenance personnel will move the trash containers from the trash room, to the trash enclosure area. The trash will be picked up by BFI, and they will return the container to the enclosure area. Then, the project's maintenance personnel will move the empty containers back to the trash room.
- The same process (as delineated above) is to be used for removal of the recycling container.
- We also agreed that since we do not have a compactor, and the BFI truck will remain in the driveway, we do not need oversized gates. The trash enclosure area will be large enough to hold 6 containers.

\* Please note that the project's units were reduced from 140 units to 120 units.

If you have any questions, please do not hesitate to contact me.

Very Truly Yours,

J. Kobi Moses, AIA | Principal  
GMP Architects, Inc.  
kmoses@gmparchitects.com



# **Milpitas Family and Senior Housing - Transportation Impact Analysis**

*Prepared for:*

The City of Milpitas and USA Properties, Inc.

*Prepared by:*

Hexagon Transportation Consultants, Inc.

September 10, 2004

# Table of Contents

---

Executive Summary.....	iii
1. Introduction.....	1
2. Existing Conditions.....	9
3. Background Conditions.....	17
4. Project Impacts and Recommendations .....	21
5. Future Growth and Cumulative Conditions .....	30
6. Conclusions.....	32

## Appendices

Appendix A: Traffic Counts
Appendix B: Level of Service Calculations
Appendix C: North San Jose Deficiency Plan Calculations

## List of Tables

Table ES-1 Levels of Service .....	iv
Table 1 Freeway Segment Evaluation.....	5
Table 2 Intersection Level of Service Definitions Based on Delay .....	7
Table 3 VTA Transit Service .....	13
Table 4 Existing Intersection Levels of Service.....	16
Table 5 Background Intersection Levels of Service .....	20
Table 6 Project Trip Generation.....	22
Table 7 Project Condition Levels of Service .....	26
Table 8 North San Jose Deficiency Plan Intersection Levels of Service .....	27
Table 9 LOS Under Future Growth Conditions .....	31

## List of Figures

Figure 1 Site Location.....	2
Figure 2 Site Plan.....	3
Figure 3 Existing Bikeways Map.....	11
Figure 4 Existing Transit Service Map .....	12
Figure 5 Existing Lane Configurations.....	14
Figure 6 Existing Peak Hour Traffic Volumes .....	15
Figure 7 Background Peak Hour Traffic Volumes .....	19
Figure 8 Project Trip Distribution.....	23
Figure 9 Project Trip Assignment.....	24
Figure 10 Project Condition Traffic Volumes .....	25

## Executive Summary

---

The purpose of this report is to analyze the transportation impacts of the proposed family and senior housing project located north of Montague Expressway and east of South Main Street. The site is currently vacant. The project would consist of approximately 204 residential units, including 84 apartments and 120 senior housing units. Access to the site would be provided via two driveways on South Main Street. Emergency access would also be available via one driveway on Montague Expressway.

The proposed project's impacts were evaluated in accordance with Congestion Management Program, City of Milpitas, and City of San Jose guidelines at 9 intersections during the AM and PM peak commute hours (see Table ES-1). The signalized intersections were evaluated using the *2000 Highway Capacity Manual* methodology and TRAFFIX software.

**Trip Generation.** The trip generation rates used were those published by the San Diego Association of Governments (SANDAG) for apartment and senior housing uses. It was estimated that the project would generate 64 AM peak hour trips and 79 PM peak hour trips. The proposed project's trip distribution pattern was estimated based on previous traffic impact analyses. The trips generated by the proposed development were then assigned to the roadway network based on this directional distribution.

**Intersection Impacts and Mitigation.** The proposed project would not result in any significant impacts at the study intersections. However, the project would add traffic to four intersections that are operating at unacceptable levels under background conditions. To account for the cumulative impacts of new development traffic on existing deficient intersections, the City of Milpitas requires projects to pay their "fair share" of the traffic improvement costs. Currently, the City and County have plans to widen Montague Expressway. Since the proposed project would contribute traffic to deficient intersections on Montague Expressway, it would be required to make a monetary contribution toward the Montague improvements. Also, the project shall comply with the Montague Expressway widening project.

**Impacts to Alternative Modes.** The proposed project's impacts to existing bicycle, transit, and pedestrian facilities were also evaluated as part of this study. Although the development would increase the demand for such facilities, it would not result in any adverse significant impacts.

**Table ES 1**  
**Signalized Intersection Levels of Service Summary**

Intersection	Peak Hour	Count Date	Existing		Background		Project Conditions				Future	
			Ave. Delay	LOS	Ave. Delay	LOS	Ave. Delay	LOS	Incr. In Crit Delay	Incr. In Crit W/C	Ave. Delay	LOS
South Abel Street and Great Mall Parkway	AM	1/26/2000	42.2	D	78.3	E	79.2	E	1.4	0.003	90.2	F
	PM	10/12/1999	28.0	C	29.3	C	29.4	C	0.0	0.001	30.2	C
South Main Street and Great Mall Parkway	AM	1/20/2000	17.3	B	19.9	B	19.9	B	0.0	0.001	20.2	C
	PM	10/13/1999	33.0	C	34.5	C	34.5	C	0.1	0.001	35.0	C
South Milpitas Boulevard and Montague Expressway <sup>1,2</sup>	AM	1/19/2000	104.1	F	76.8	E	76.9	E	0.3	0.001	83.5	F
	PM	4/26/2000	40.3	D	41.7	D	41.9	D	0.4	0.003	44.4	D
Great Mall Parkway/East Capitol Avenue and Montague Expressway <sup>1</sup>	AM	1/20/2000	104.2	F	163.9	F	163.9	F	0.0	0.000	174.2	F
	PM	4/26/2000	110.1	F	188.3	F	188.3	F	0.0	0.001	198.4	F
McCandless Drive/Trade Zone Boulevard and Montague Expressway <sup>1</sup>	AM	1/20/2000	40.1	D	42.1	D	42.2	D	0.0	0.002	44.6	D
	PM	3/16/2000	75.4	E	81.1	F	81.3	F	0.2	0.004	88.3	F
South Main Street/Oakland Road and Montague Expressway <sup>1</sup>	AM	1/19/2000	60.1	E	76.3	E	78.1	E	2.9	0.006	84.5	F
	PM	4/26/2000	66.0	E	76.9	E	79.2	E	6.0	0.012	87.8	F
McCarthy Boulevard/O'Toole Avenue and Montague Expressway <sup>1</sup>	AM	10/7/1999	39.9	D	40.2	D	40.2	D	0.0	0.000	42.0	D
	PM	3/16/2000	97.3	F	97.3	F	97.3	F	0.0	0.000	104.1	F
South Abel Street and South Main Street	AM	1/27/2000	12.4	B	13.2	B	13.2	B	0.1	0.004	13.3	B
	PM	9/29/1999	8.3	A	8.9	A	8.9	A	0.1	0.005	9.0	A
South Main Street and Cedar Way	AM	9/16/2003	15.8	B	15.9	B	15.9	B	0.0	0.002	16.0	B
	PM	9/16/2003	13.4	B	13.5	B	13.5	B	0.0	0.005	13.7	B

1. Denotes CMP intersection.

2. Assumes Improvement.

# 1.

## Introduction

---

The purpose of this report is to analyze the transportation impacts of the proposed family and senior housing project located north of Montague Expressway and east of South Main Street. The site is currently vacant. The project would consist of approximately 204 residential units, including 84 apartments and 120 senior housing units. Access to the site would be provided via two driveways on South Main Street. Emergency access would also be available via one driveway on Montague Expressway. The project location is shown graphically on Figure 1. The proposed site plan is shown in Figure 2.

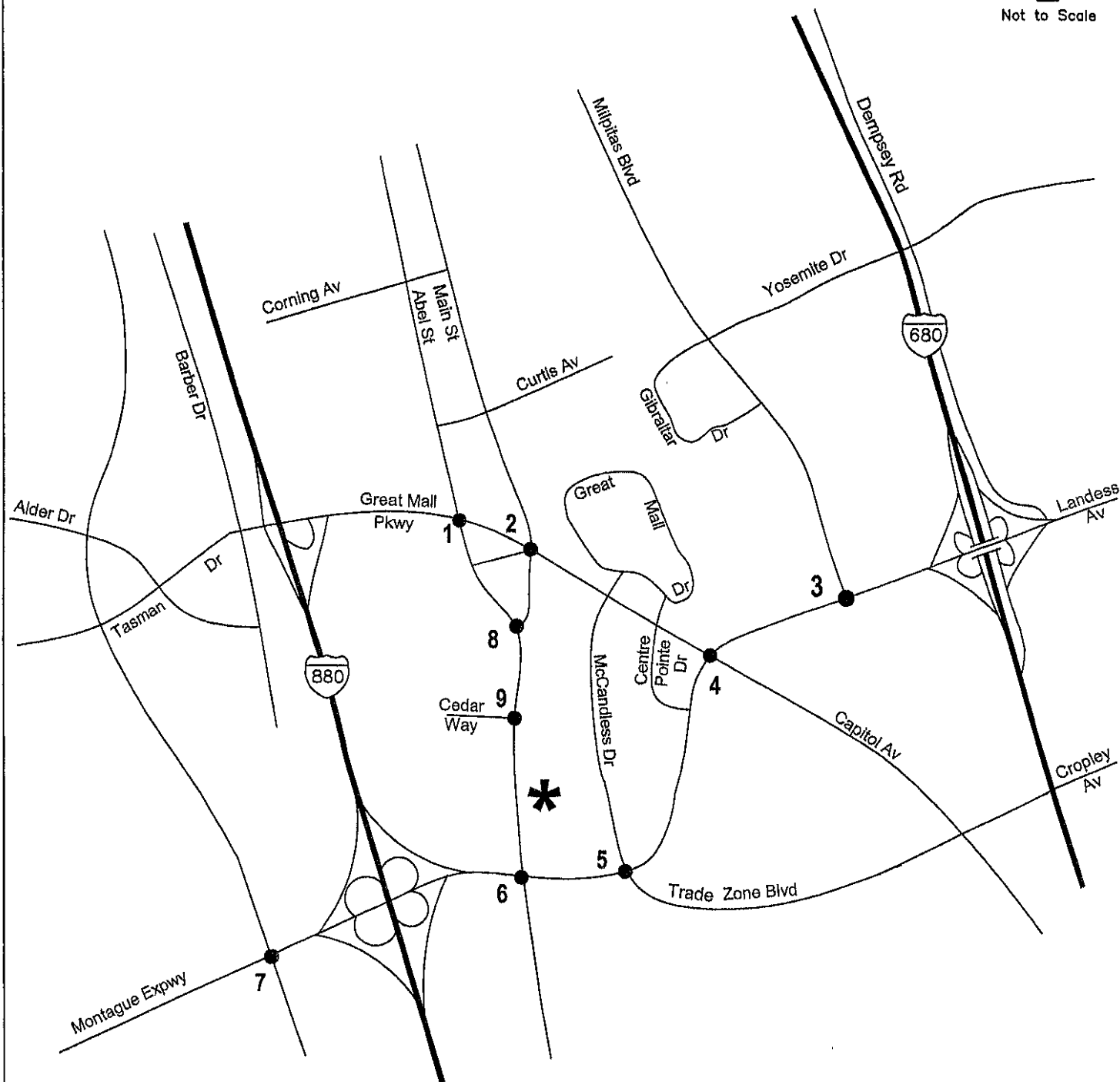
### Scope of Work

The impacts of the development were evaluated following the guidelines set forth by the City of Milpitas, the City of San Jose, and the Santa Clara Valley Transportation Authority's (VTA) Congestion Management Program (CMP). Each intersection was analyzed using the appropriate level of service (LOS) methodology for the city in which it is located. The following intersections were analyzed for this project. The CMP intersections are denoted with an asterisk (\*).

- South Abel Street and Great Mall Parkway
- South Abel Street and South Main Street
- South Main Street and Great Mall Parkway
- South Main Street and Cedar Way
- South Milpitas Boulevard and Montague Expressway\*
- Great Mall Parkway/East Capitol Avenue and Montague Expressway\*
- McCandless Drive/Trade Zone Boulevard and Montague Expressway\*
- South Main Street/Oakland Road and Montague Expressway\*
- McCarthy Boulevard/O'toole Avenue and Montague Expressway\*



Not to Scale



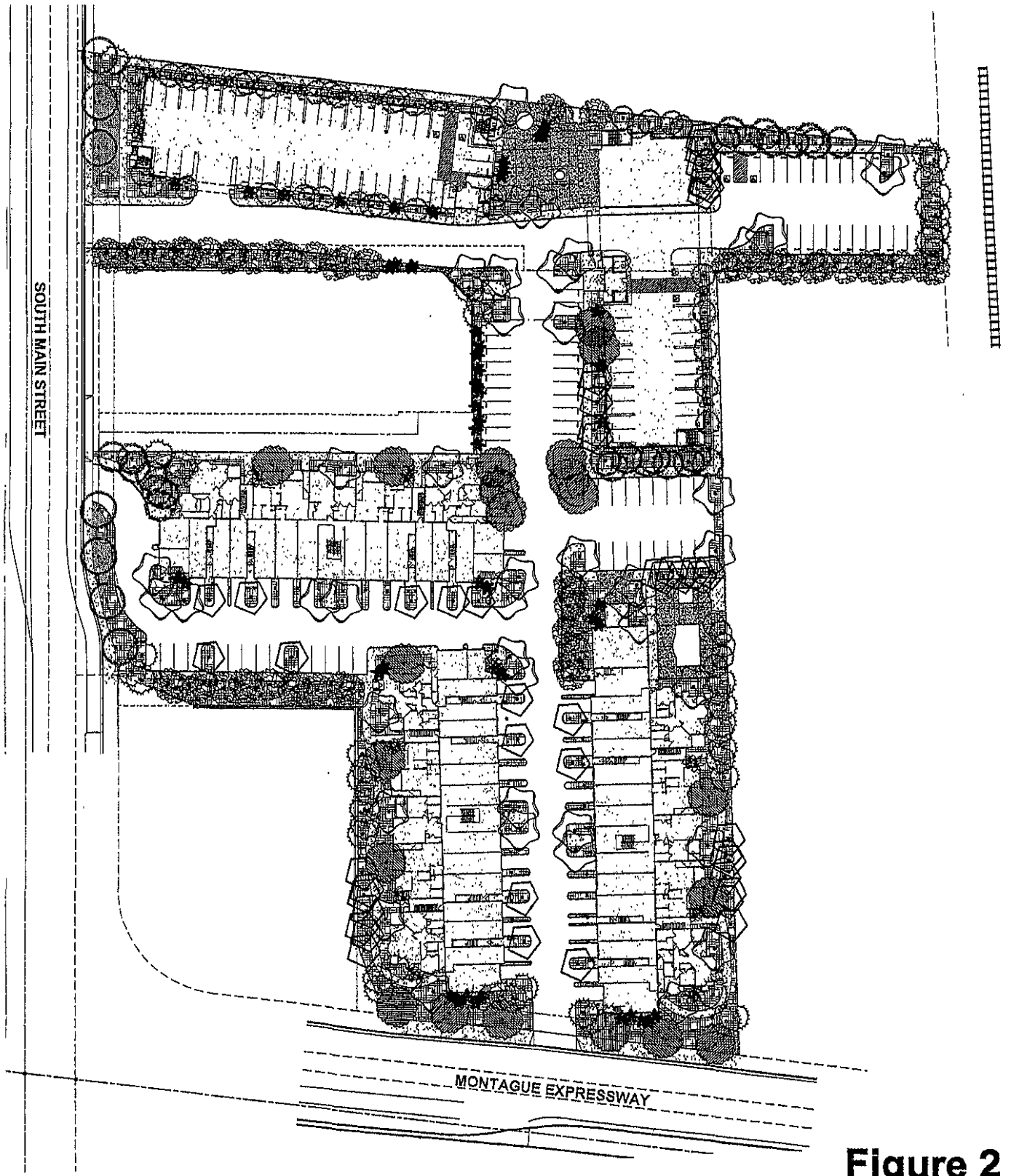
#### LEGEND



= Site



= Study  
Intersection



**Figure 2**  
**Proposed Site Plan**

These intersections were selected based on CMP guidelines, which state that an intersection should be analyzed for impacts if project traffic would add more than ten trips per lane to any intersection approach. The intersections were analyzed during the weekday AM and PM peak hours of traffic (commonly referred to as the commute hours), which occur from 7:00 - 9:00 AM, and 4:00 - 6:00 PM. These periods represent the most congested traffic conditions of an average weekday, and also correspond with the peak hours of trip generation of the proposed development.

In addition, the proposed project's impacts during the PM peak hour were evaluated using the North San Jose Deficiency Plan (NSJDP) 22 intersection average. All of these intersections are designated CMP intersections. They are:

- U.S. 101 and Brokaw Road
- SR 237 and North First Street (north)
- SR 237 and North First Street (south)
- SR 237 and Zanker Road (north)
- SR 237 and Zanker Road (south)
- I-880 and Brokaw Road (East)
- I-880 and Brokaw Road (West)
- I-880 and North First Street (North)
- I-880 and North First Street (South)
- Brokaw Road and Old Oakland Road
- Brokaw Road and North First Street
- Brokaw Road and Zanker Road
- De La Cruz Avenue Boulevard and Trimble Road
- North First Street and Montague Expressway
- North First Street and Trimble Road
- Lundy Avenue and Murphy Avenue
- Montague Expressway and Zanker Road
- Montague Expressway and Trade Zone/McCandless Drive
- Montague Expressway and South Main Street/Old Oakland Road
- Montague Expressway and McCarthy Boulevard/O'toole
- Montague Expressway and Trimble Road
- Trimble Road and Zanker Road

The CMP's requirements regarding the need to study freeway segments for the proposed project were also evaluated. According to CMP guidelines, a freeway segment should be studied when a proposed development would add traffic to a segment greater than one percent of its capacity. Table 1 shows this comparison. (The methods used to assign project traffic to the roadway network are described in the "Project Impacts and Recommendations" chapter of this report.) The capacity of a mixed-flow lane as specified by the *Highway Capacity Manual* is 2,200 vehicles per hour (vph) on four-lane facilities, and 2,300 vph on facilities with six or more lanes. The capacity of high occupancy vehicle lanes (HOV) were ignored for this calculation. Based on this comparison, the study of freeway segments is not required for this analysis.



**Table 1**  
**Freeway Segment Evaluation**

Freeway	Segment	Direction	# of Lanes	Capacity* (vphpl)	1% of Capacity	Project Trips	
						AM	PM
I-880	SR 237 to Tasman Drive	SB	3.5	8050	81	2	4
I-880	Tasman Drive to Montague Expwy	SB	3.5	8050	81	2	4
I-880	South of Montague Expressway	SB	3	6900	69	7	4
I-680	Calaveras Blvd to Yosemite Drive	SB	4	9200	92	1	3
I-680	Yosemite Drive to Montague Express	SB	4	9200	92	1	3
I-680	South of Montague Expressway	SB	4	9200	92	3	2
I-880	SR 237 to Tasman Drive	NB	3.5	8050	81	4	2
I-880	Tasman Drive to Montague Expwy	NB	3.5	8050	81	4	2
I-880	South of Montague Expressway	NB	3	6900	69	3	8
I-680	Calaveras Blvd to Yosemite Drive	NB	4	9200	92	3	2
I-680	Yosemite Drive to Montague Express	NB	4	9200	92	3	2
I-680	South of Montague Expressway	SB	4	9200	92	1	3

\*Capacity was based on the ideal capacity cited in the *1994 Highway Capacity Manual*

The operations of the key intersections were evaluated for the following scenarios:

- Scenario 1:** *Existing Conditions.* Existing conditions were represented by existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes were obtained from previous traffic analyses.
- Scenario 2** *Background Conditions.* Background conditions were represented by future background traffic volumes on the near-term future roadway network. Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet completed developments. The latter component is contained in the City of Milpitas Approved Trips Inventory (ATI).
- Scenario 3** *Project Conditions.* Project conditions were represented by future traffic volumes, with the project, on the near-term future roadway network. Future traffic volumes with the project (hereafter called *project traffic volumes*) were estimated by adding to background traffic volumes the additional traffic generated by the project. Project conditions were evaluated relative to background conditions in order to determine potential project impacts.
- Scenario 4** *Future Growth Conditions.* Future growth conditions were represented by future traffic volumes, at the date of project occupancy, on the near-term future roadway network. Traffic volumes under future growth conditions were estimated by applying a growth factor to existing volumes, adding trips from approved developments, and adding project trips. This scenario is evaluated to fulfill CMP requirements.

## Methods

This section describes the methods used to determine the traffic operations for each scenario. It includes the methods used for data collection, level of service calculations, and describes the various level of service standards, as well as the criteria for project impacts.

### **Data Collection**

The data for the study locations were obtained from previous traffic studies, the City of Milpitas, new traffic counts (see appendix A), and the VTA's CMP. The following data were collected from these sources:

- existing traffic volumes,
- lane geometrics,
- signal timing and phasing.

### **Level of Service Methods**

The previously-described data were then used to calculate each study location's level of service (LOS). Level of service is a qualitative measure of traffic operations, ranging from LOS A (free-flow condition) to LOS F (forced-flow conditions). The levels of service at signalized intersections were evaluated using TRAFFIX software with CMP defaults. This method uses the *2000 Highway Capacity Manual* methodology to estimate the average stopped delay per vehicle in seconds. This average delay can then be correlated to a level of service as shown on Table 2.

### **Level of Service Standards**

For CMP intersections, the minimum acceptable level of service is LOS E. At intersections in San Jose and Milpitas that are not CMP intersections, the minimum acceptable level of service is LOS D.

The City of San Jose has established a deficiency plan for the 22 CMP intersections in north San Jose. The plan requires that the average delay during the PM peak hour at the 22 intersections be averaged to less than 88 seconds. According to the North San Jose Plan (NSJDP), the maximum delay at an intersection is capped at 150 percent of its cycle length.

### **Project Impact Criteria**

According to the City of Milpitas, as well as the CMP, project impacts at signalized intersections occur when:

1. The level of service at an intersection drops below its LOS standard (LOS E at CMP intersections, and LOS D on city streets) when project traffic is added; or
2. An intersection that is operating worse than its level of service standard under background conditions has an increase in critical delay of four or more seconds **AND** the demand-to-capacity ratio (V/C) is increased by more than .01 when project traffic is added.

**Table 2**  
**Intersection Level of Service Definitions Based on Delay**

Level of Service	Description	Average Control Delay Per Vehicle (seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	10.0 or less
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Source: Transportation Research Board, *Highway Capacity Manual 2000*, Exhibit 16-2.

The exception to this threshold is when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e. the change in average stopped delay for critical movements is negative). In this case, the threshold is when the project increases the critical V/C value by .01 or more.

For intersections included in the North San Jose Deficiency Plan, a project would have a significant impact on North San Jose if it caused the 22-intersection average under project conditions to be greater than 88 seconds.

## Report Organization

The remainder of this report is divided into six chapters. Chapter 2 describes existing conditions in terms of the existing roadway network, transit service, and existing bicycle and pedestrian facilities. Chapter 3 presents the intersection operations under background conditions. Chapter 4 describes the method used to estimate project traffic, its impact on the transportation system, and the recommended mitigation measures. Chapter 5 discusses the traffic conditions resulting from additional future growth. Chapter 6 presents the conclusions of the traffic impact analysis.

## 2. Existing Conditions

---

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network facilities and operations, transit service, and bicycle and pedestrian access.

### Roadway Network

Regional access to the project is provided via Interstate 680 (I-680), I-880 and State Route 237 (SR 237). Direct access to the current site is provided via South Main Street. Other major facilities in the vicinity include Montague Expressway, Great Mall Parkway and South Abel Street. These facilities are described below.

*I-680* is a north/south freeway traversing the eastern portion of Milpitas. This freeway connects the inland East Bay communities to the north with San Jose to the south. I-680 has six lanes north of SR 237 and eight lanes south of SR 237. A northbound HOV lane is in operation during the AM 10-minute period on I-680 north of Calaveras Boulevard. The northbound HOV lane is planned, but not fully funded at the time.

*I-880* is also a north/south freeway providing regional access from East Bay cities to San Jose, where it becomes SR 17. Within the City of Milpitas, I-880 is a six-lane freeway. South of Montague Expressway, this facility was recently widened to six lanes, and operates in congestion during both the morning and afternoon peak periods.

*State Route 237/Calaveras Boulevard* is an east/west arterial between I-880 and I-680 and generally provides six travel lanes (four on the Union Pacific overcrossing). West of I-880, this facility becomes a freeway with four mixed flow lanes and two High Occupancy Vehicle (HOV) lanes. Calaveras Boulevard accommodates a significant amount of regional through traffic during the peak commute hours. Milpitas staff estimate that approximately 50 percent of the peak hour traffic between I-680 and I-880 is generated outside of Milpitas. The predominate direction of travel is westbound in the morning and eastbound during the afternoon.

*Great Mall Parkway* is an east/west divided arterial connecting Capital Avenue to I-880. In general, this roadway operates within capacity and does not experience significant peak hour congestion except at its intersection with Montague Expressway. West of I-880, Great Mall Parkway becomes Tasman Drive.

*Montague Expressway* is an east/west expressway in southern Milpitas that generally provides six travel lanes. It is operated by the Santa Clara County Roads and Airports Department. The peak direction of travel is westbound in the morning, and eastbound in the evening. This facility also provides HOV lanes both during the AM peak hours in the westbound direction and PM peak hours in the eastbound direction. Montague Expressway is a CMP facility that experiences severe congestion during both commute periods. Recently, studies have been completed to determine the phasing of potential grade separations and the feasibility of widening Montague Expressway to three mixed flow lanes and one HOV lane in each direction.

*South Main Street* is a north/south collector connecting Montague Expressway to residential areas north of Calaveras Boulevard. This roadway consists of four travel lanes from Montague Expressway to just north of Curtis Avenue, where it transitions to a two lane facility with parking on both sides. Main Street currently operates within capacity, but experiences peak hour congestion at its intersection with Montague Expressway.

*South Abel Street* is a north/south arterial beginning at South Main Street and terminating at North Milpitas Boulevard. This roadway provides a center turn lane along some segments. This facility is signalized at major cross streets, where left-turn pockets are provided. On-street parking is generally prohibited, except adjacent to residential frontage. With the exception of certain movements at major intersections, this facility generally operates within its design capacity.

## **Pedestrian and Bicycle Facilities**





Existing bicycle and pedestrian access to the proposed site is provided by a series of existing sidewalks and bike lanes on South Main Street and Abel Street. Bikes are also permitted to use the shoulder area of Montague Expressway. Figure 3 shows the existing bikeways.

## **Transit Service**

Existing bus service on the surrounding roadway network is provided by the Santa Clara Valley Transportation Authority (VTA). Route 66 and Route 77, which service Milpitas and San Jose, are located closest to the proposed project site. Table 3 summarizes the service frequencies for these routes. Light rail connects North First Street in San Jose to Hostetter Avenue via center lane medians on Tasman Drive, Great Mall Parkway, and Capitol Avenue. Figure 4 shows the existing transit service.

Not to Scale

# LEGEND

-  = Site
-  = Ped/Bike Paths
-  = Bike Routes
-  = Bike Lanes

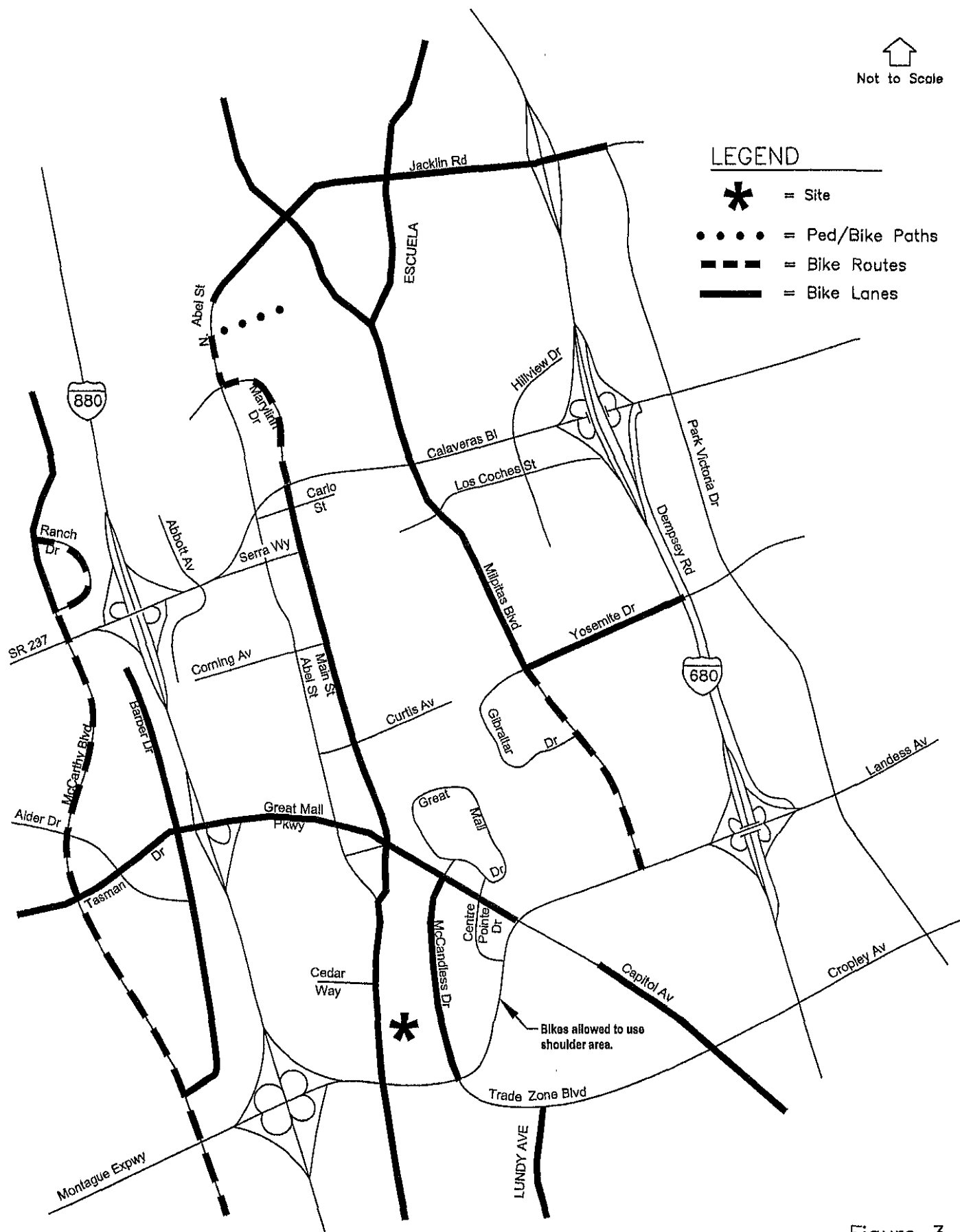
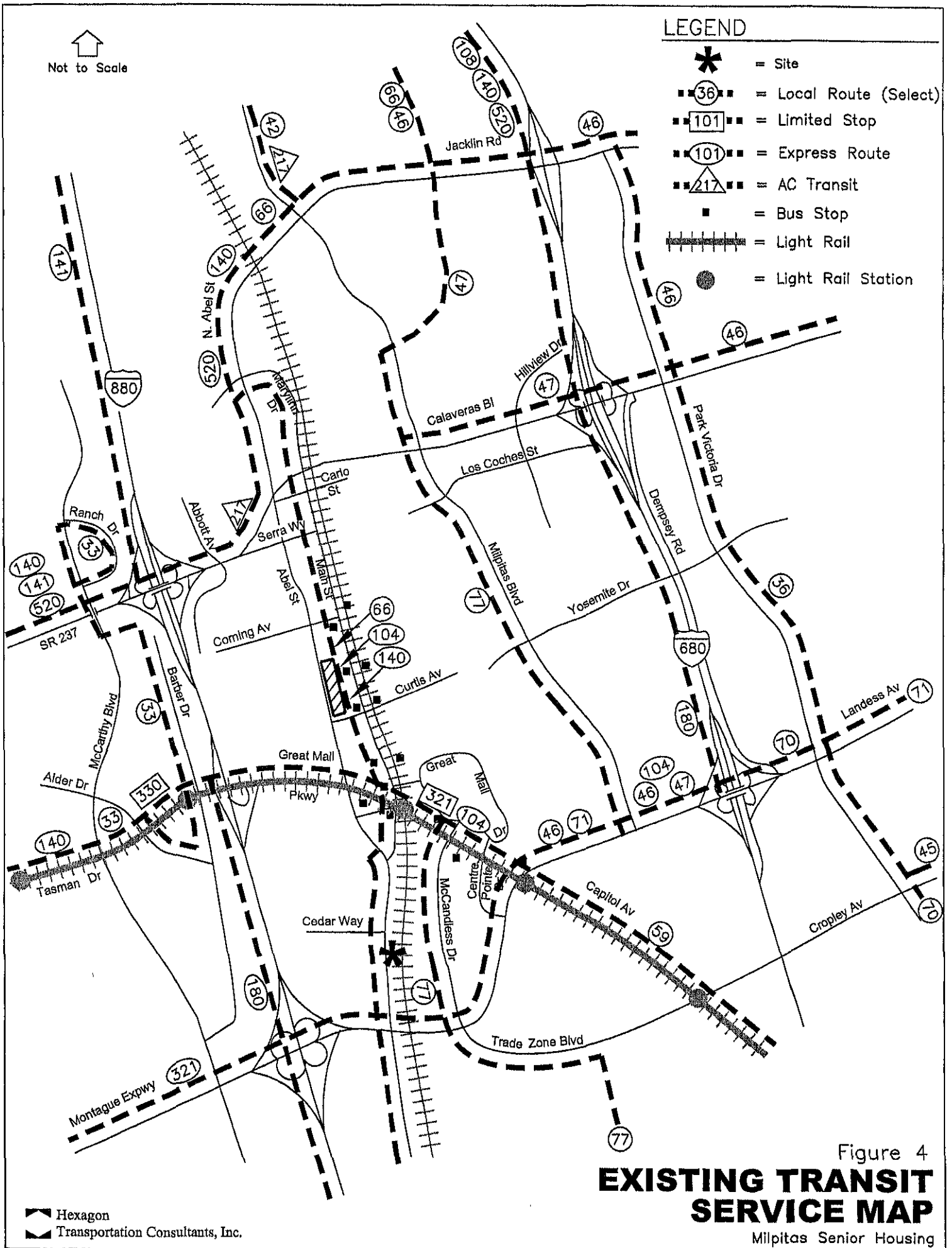


Figure 3  
**EXISTING BIKEWAYS MAP**  
 Milpitas Senior Housing





**Table 3**  
**VTA Transit Service**

Line	Route Description	Weekday Hour of Operation	Headway*
Route 77	Milpitas to East San Jose	5:30 AM to 9:30 PM	15 to 30 minutes
Route 66	Milpitas to Downtown San Jose	5:00 AM to 11:30 PM	15 minutes

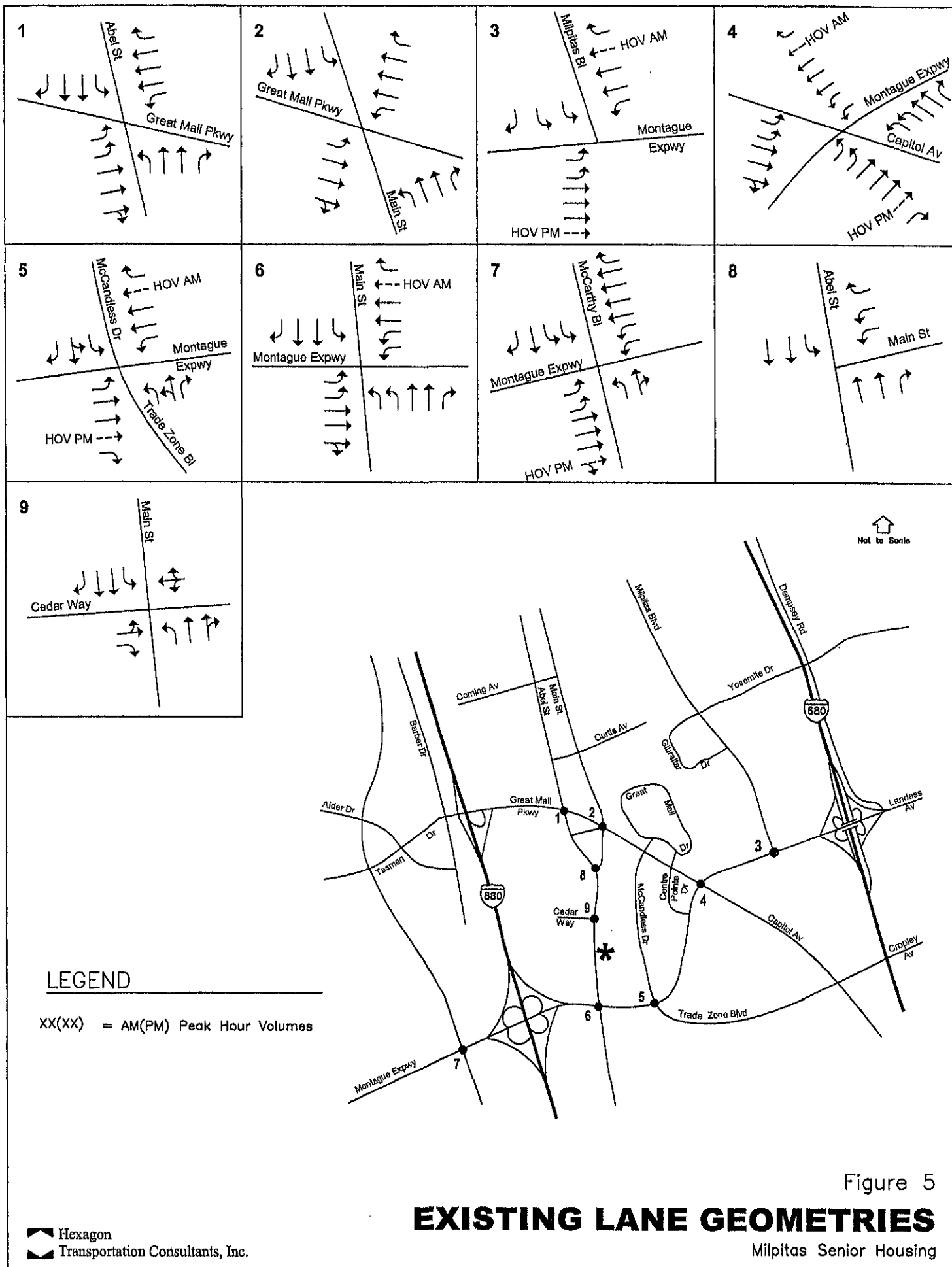
\* Headways during commute periods

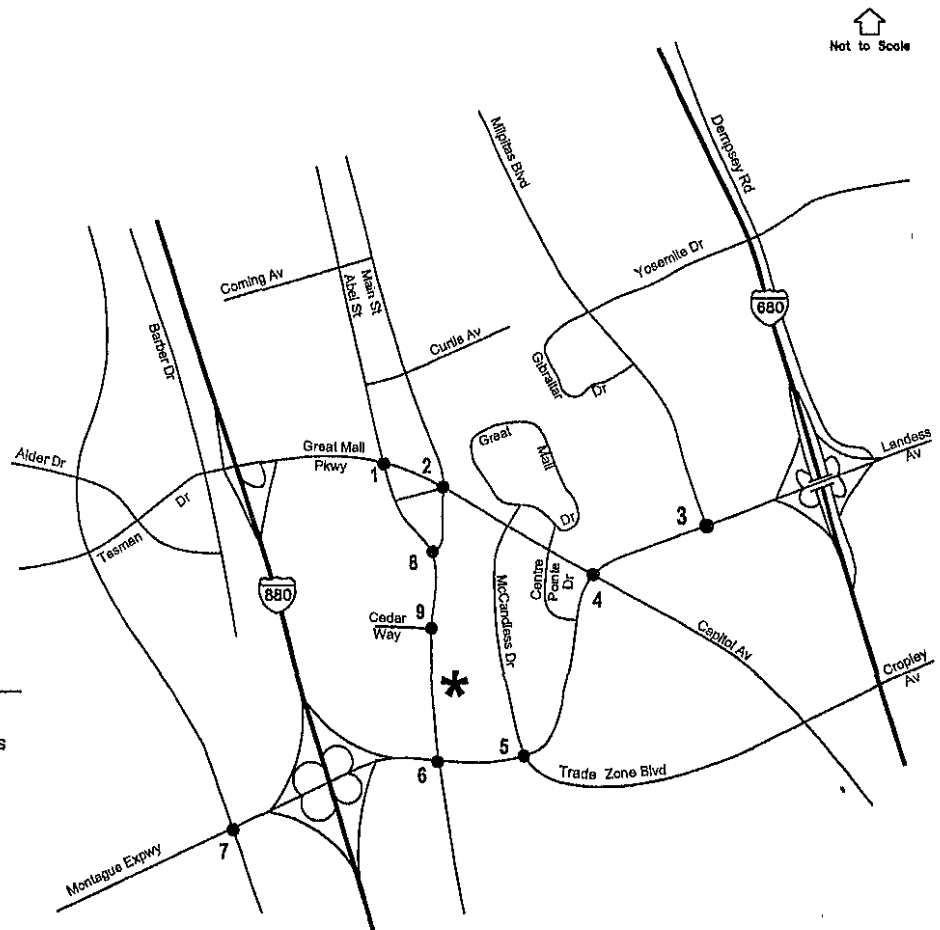
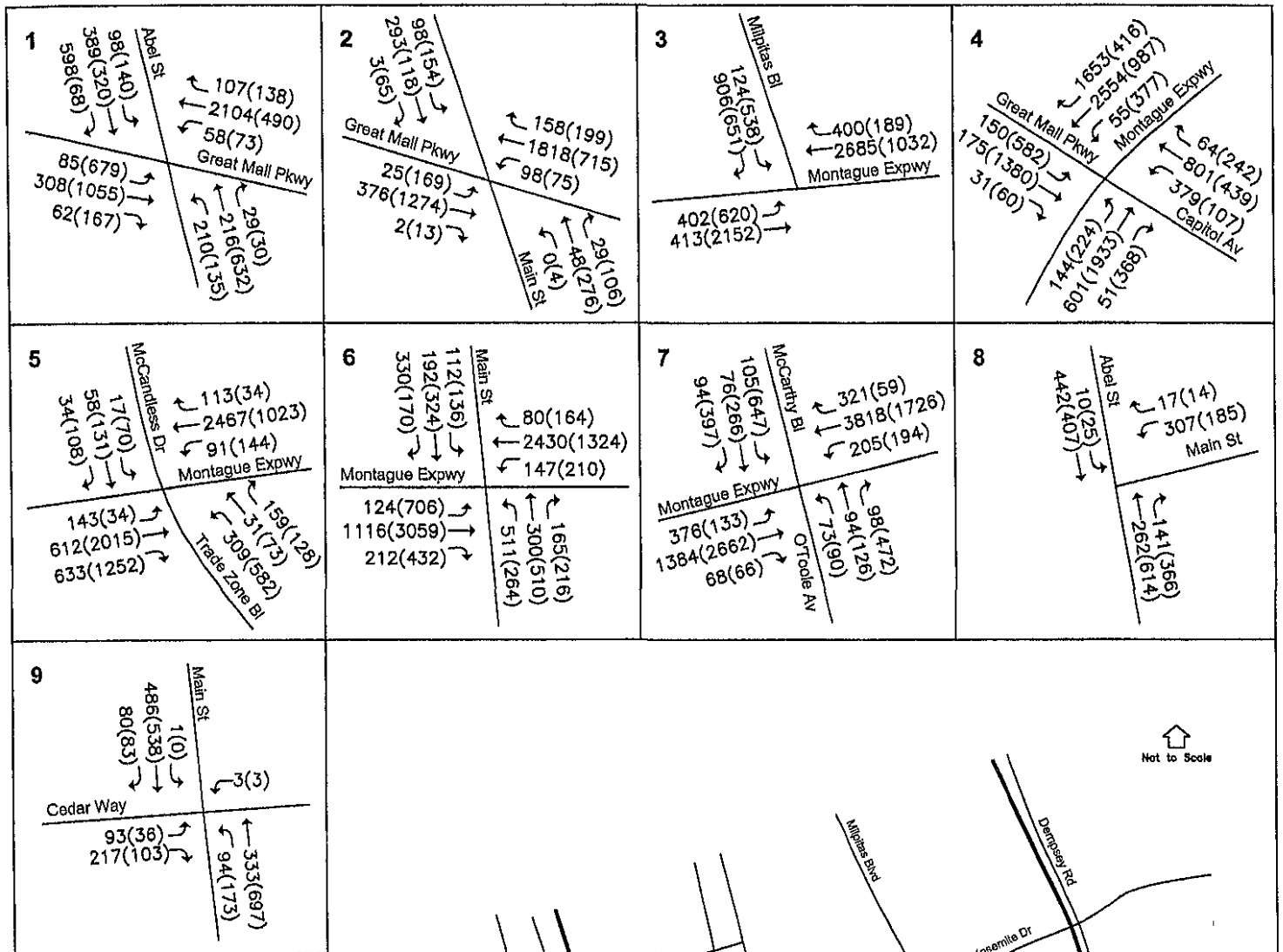
## Existing Intersection Operations

Traffic volumes and vehicular delays on city streets have decreased significantly over the past two years. This is primarily due to increased unemployment rates in Santa Clara County. Under existing 2003 conditions, the levels of service at study intersections are significantly better than those reported in 2000 or 2001. In order to not understate traffic conditions, City of Milpitas staff have requested that traffic counts from 2000 be used to represent "existing traffic conditions." For this reason, the existing conditions stated in this report do not represent actual conditions on the street. Rather, this report presents existing conditions as what could occur should economic conditions return to those of 2000 or 2001. This method insures that traffic conditions with the proposed project are not understated should the economy return to "normal" employment levels.

The operations of the study intersections were evaluated using TRAFFIX software to determine their levels of service. The lane configurations used for the calculations are shown in Figure 5. The intersection turn movement volumes are shown in Figure 6. Table 4 presents the results of the signalized intersection level of service calculations. The TRAFFIX calculation sheets are included in Appendix B. According to the LOS standards discussed in Chapter 1, the following intersections are operating at unacceptable levels of service during one or both peak hours:

- South Milpitas Boulevard and Montague Expressway
- Great Mall Parkway/East Capitol Avenue and Montague Expressway
- McCarthy Boulevard/O'toole Avenue and Montague Expressway





# LEGEND

XX(X) = AM(PM) Peak Hour Volumes

## EXISTING TRAFFIC VOLUMES

Milpitas Senior Housing

Figure 6

**Table 4**  
**Existing Intersection Levels of Service**

Intersection	Peak Hour	Count Date	Ave. Delay	LOS
South Abel Street and Great Mall Parkway	AM	1/26/2000	42.2	D
	PM	10/12/1999	28.0	C
South Main Street and Great Mall Parkway	AM	1/20/2000	17.3	B
	PM	10/13/1999	33.0	C
South Milpitas Boulevard and Montague Expressway*	AM	1/19/2000	104.1	F
	PM	4/26/2000	40.3	D
Great Mall Parkway/East Capitol Avenue and Montague Expressway*	AM	1/20/2000	104.2	F
	PM	4/26/2000	110.1	F
McCandless Drive/Trade Zone Boulevard and Montague Expressway*	AM	1/20/2000	40.1	D
	PM	3/16/2000	75.4	E
South Main Street/Oakland Road and Montague Expressway*	AM	1/19/2000	60.1	E
	PM	4/26/2000	66.0	E
McCarthy Boulevard/O'Toole Avenue and Montague Expressway*	AM	10/7/1999	39.9	D
	PM	3/16/2000	97.3	F
South Abel Street and South Main Street	AM	1/27/2000	12.4	B
	PM	9/29/1999	8.3	A
South Main Street and Cedar Way	AM	9/16/2003	15.8	B
	PM	9/16/2003	13.4	B

\* Denotes CMP intersection.

### **3.**

## **Background Conditions**

---

This chapter describes background traffic conditions. Background conditions are defined as conditions just prior to completion of the proposed development. Traffic volumes for background conditions comprise volumes from year 2000 traffic counts (see discussion in previous chapter) plus traffic generated by other approved developments in the vicinity of the site. Traffic volume and roadway network assumptions are described below. The pedestrian and bicycle facilities were assumed unchanged from those of existing conditions.

### **Roadway Network**

It is assumed in this analysis that the future near-term roadway network under background conditions would be the same as the existing roadway network, except on Montague Expressway. Santa Clara County has developed plan-line improvements to widen Montague Expressway to provide one additional travel lane in each direction and provide HOV lanes 24 hours per day. Although most of this project is unfunded, the City of Milpitas has been collecting development fees to widen Montague Expressway within its City limits. As a result, the widening of Montague Expressway between Centre Pointe Drive and I-680 is nearly fully funded and the widening at the intersection of Great Mall Parkway and Montague Expressway has been completed. Because funding of the Montague Expressway widening project between Centre Pointe and I-680 is likely, the planned improvements to the intersection of Milpitas Boulevard and Montague Expressway were assumed in the background conditions of this analysis. No other improvements to study intersections were assumed for this analysis.

### **Transit Service Improvements**

The Tasman East/Capitol Light Rail project is currently operating in the median of Great Mall Parkway. The line travels east on Tasman Drive from North First Street to I-880. East of I-880, the light rail is on an elevated guideway for approximately 1.3-miles along Great Mall Parkway and Capitol Avenue. The light rail extension returns to street level on Capitol Avenue at Autumnvale Drive, then continues along Capitol Avenue to just south of Alum Rock Avenue. Extended service from the Baypointe station to east San Jose began in June 2004. In conjunction with the Light Rail extension, VTA is operating a bus transfer station at the Great Mall of the Bay Area.

## Background Traffic Volumes

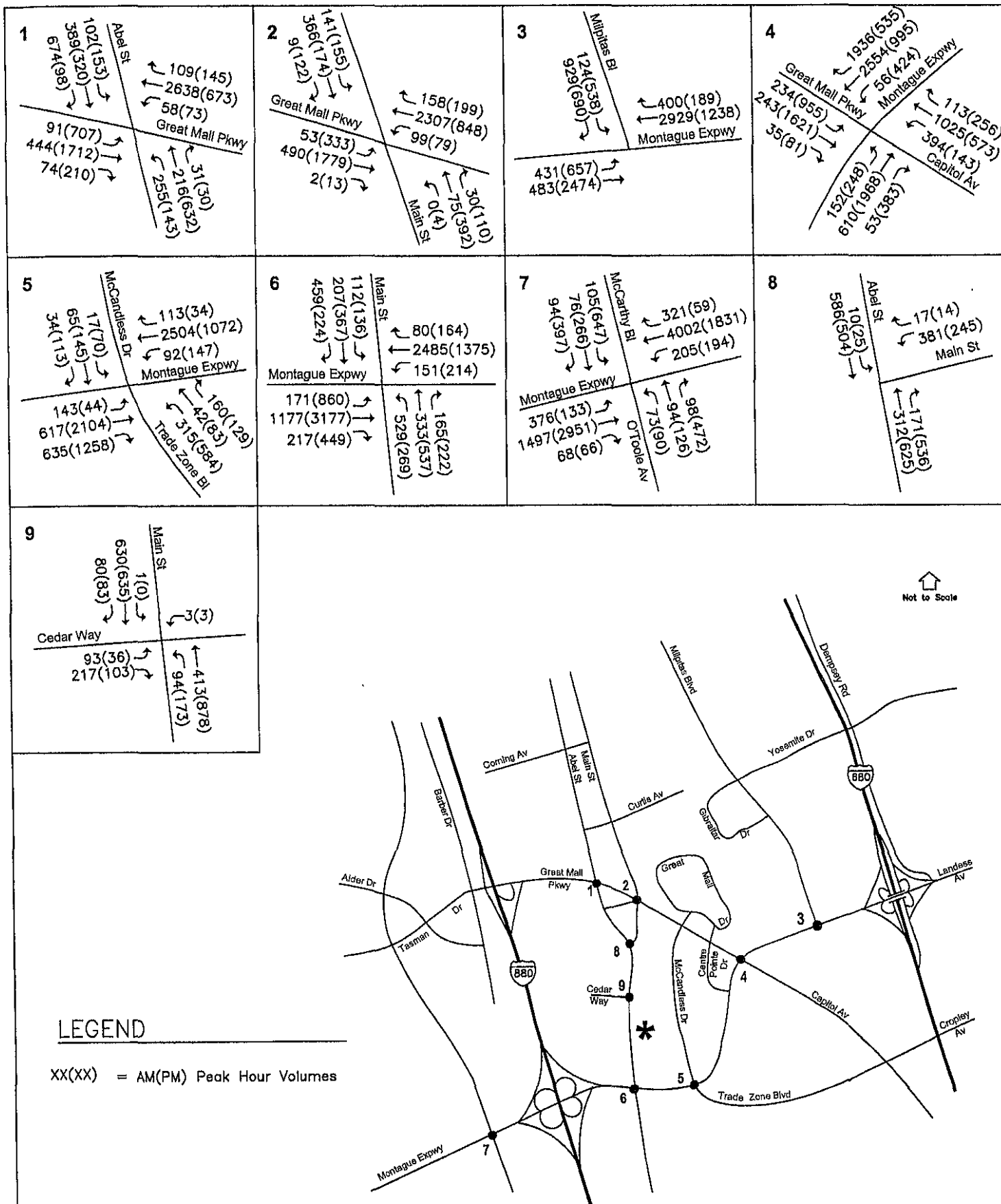
Background peak-hour traffic volumes were established by adding to year 2000 volumes the estimated traffic from approved but not yet constructed developments. The added traffic from approved but not yet constructed developments was supplied by the City of Milpitas and based on the approved projects scenario contained in the *Milpitas Midtown Specific Plan*. Background traffic volumes are shown on Figure 7.

## Intersection Operations

Intersection level of service calculations were conducted to evaluate the operating levels of the key signalized intersections under background conditions. These calculations were performed using background volumes and roadway network assumptions. The results are shown on Table 5. The TRAFFIX calculation sheets are included in Appendix B. According to City of Milpitas and CMP guidelines, the following intersections will operate at unacceptable levels during one or both peak hours:

- South Abel Street and Great Mall Parkway
- Great Mall Parkway/East Capitol Avenue and Montague Expressway
- McCandless Drive/Trade Zone Boulevard and Montague Expressway
- McCarthy Boulevard/O'toole Avenue and Montague Expressway

The remaining study intersections are projected to operate at acceptable levels during both peak hours of operation.



**Table 5**  
**Background Intersection Levels of Service**

Intersection	Peak Hour	Count Date	Existing		Background	
			Ave. Delay	LOS	Ave. Delay	LOS
South Abel Street and Great Mall Parkway	AM	1/26/2000	42.2	D	78.3	E
	PM	10/12/1999	28.0	C	29.3	C
South Main Street and Great Mall Parkway	AM	1/20/2000	17.3	B	19.9	B
	PM	10/13/1999	33.0	C	34.5	C
South Milpitas Boulevard and Montague Expressway <sup>1,2</sup>	AM	1/19/2000	104.1	F	76.8	E
	PM	4/26/2000	40.3	D	41.7	D
Great Mall Parkway/East Capitol Avenue and Montague Expressway <sup>1</sup>	AM	1/20/2000	104.2	F	163.9	F
	PM	4/26/2000	110.1	F	188.3	F
McCandless Drive/Trade Zone Boulevard and Montague Expressway <sup>1</sup>	AM	1/20/2000	40.1	D	42.1	D
	PM	3/16/2000	75.4	E	81.1	F
South Main Street/Oakland Road and Montague Expressway <sup>1</sup>	AM	1/19/2000	60.1	E	76.3	E
	PM	4/26/2000	66.0	E	76.9	E
McCarthy Boulevard/O'Toole Avenue and Montague Expressway <sup>1</sup>	AM	10/7/1999	39.9	D	40.2	D
	PM	3/16/2000	97.3	F	97.3	F
South Abel Street and South Main Street	AM	1/27/2000	12.4	B	13.2	B
	PM	9/29/1999	8.3	A	8.9	A
South Main Street and Cedar Way	AM	9/16/2003	15.8	B	15.9	B
	PM	9/16/2003	13.4	B	13.5	B

1. Denotes CMP Intersection.

2. Assumes Improvement.



## 4.

# **Project Impacts and Recommendations**

---

The impacts of the proposed project are discussed in this chapter. First, the method used to estimate the amount of traffic added to the roadway system by the project is described. Then, as specified by CMP requirements, individual intersections are analyzed under project conditions. Project conditions are defined as background volumes plus the additional traffic generated by the proposed project. Under project conditions, the roadway network would be the same as under background conditions.

### **Project Traffic Estimates**

The amount of traffic associated with a development is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In the first step, the amount of traffic entering and exiting the site is estimated on a peak hour basis. In the second step, the directions of approach and departure of project traffic are estimated. In the third step, the trips are assigned to specific streets and intersections. This process is described in the following sections.

#### ***Trip Generation***

The amount of traffic generated by the proposed project was estimated by applying the appropriate trip generation rates to the size of the development. The trip generation rates used were those published by the San Diego Association of Governments (SANDAG) for apartment and senior housing uses. The project's trip generation estimates are presented in Table 6.

The VTA light rail station operates along Great Mall Parkway, which will increase the probability that the occupants of the proposed project would use transit. However, the light rail station would not be located within 2,000 feet of the proposed project. Therefore, per CMP technical guidelines, no trip deduction was assumed beyond that already reflected in the SANDAG trip rates.

**Table 6**  
**Project Trip Generation**

Use	Units	AM Peak Hour						PM Peak Hour					
		Rate			Trips			Rate			Trips		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Senior Housing	120	0.08	0.12	0.20	10	14	24	0.17	0.11	0.28	20	13	33
Apartments	84	0.10	0.38	0.48	8	32	40	0.38	0.16	0.54	32	14	46
<b>Total</b>	<b>204</b>				<b>18</b>	<b>46</b>	<b>64</b>				<b>52</b>	<b>27</b>	<b>79</b>

1) Based on San Diego Association of Governments (SANDAG) Traffic Generation Rates (1998).

### ***Trip Distribution & Assignment***

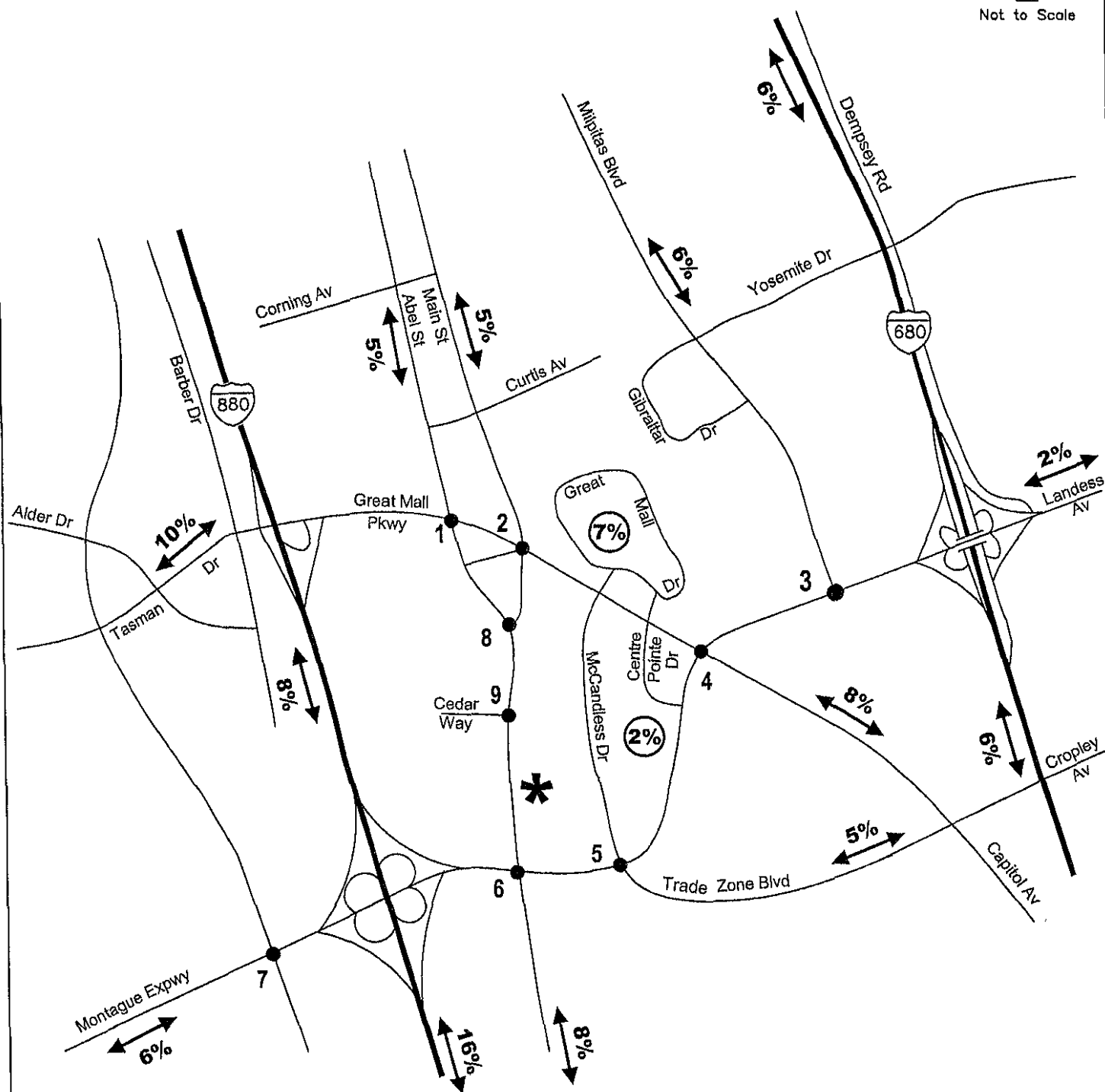
The proposed project's trip distribution pattern was estimated based on previous traffic impact analyses and the relative locations of complementary land uses. The trip distribution pattern is shown graphically on Figure 8. The trips generated by the proposed project were then assigned to the roadway network based on this directional distribution during the peak hours of adjacent street traffic. Figure 9 shows the proposed project's trip assignment.

### **Intersection Impacts and Mitigation**

Project traffic volumes were calculated by adding peak-hour, project-generated traffic to the background volumes. Intersection level of service calculations were conducted to evaluate the impacts of the proposed project at the key intersections. Background conditions served as a base from which the impacts were evaluated. The results of the level of service calculations are shown in Table 7. The level of service calculation sheets are included in Appendix B. According to the definitions provided in Chapter 1, the proposed project would not result in any significant impacts. However, the project would add traffic to intersections that are currently operating at unacceptable levels under background conditions. These include:

- South Abel Street and Great Mall Parkway
- Great Mall Parkway/East Capitol Avenue and Montague Expressway
- McCandless Drive/Trade Zone Boulevard and Montague Expressway
- McCarthy Boulevard/O'toole Avenue and Montague Expressway

↑  
Not to Scale



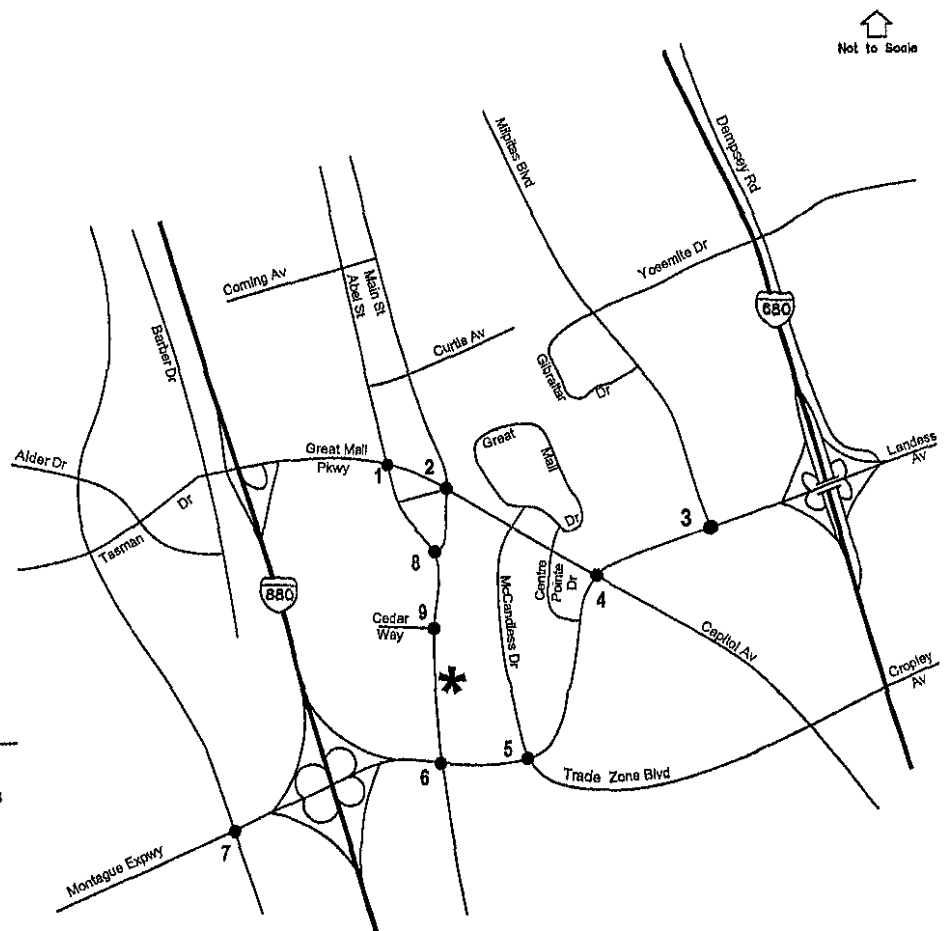
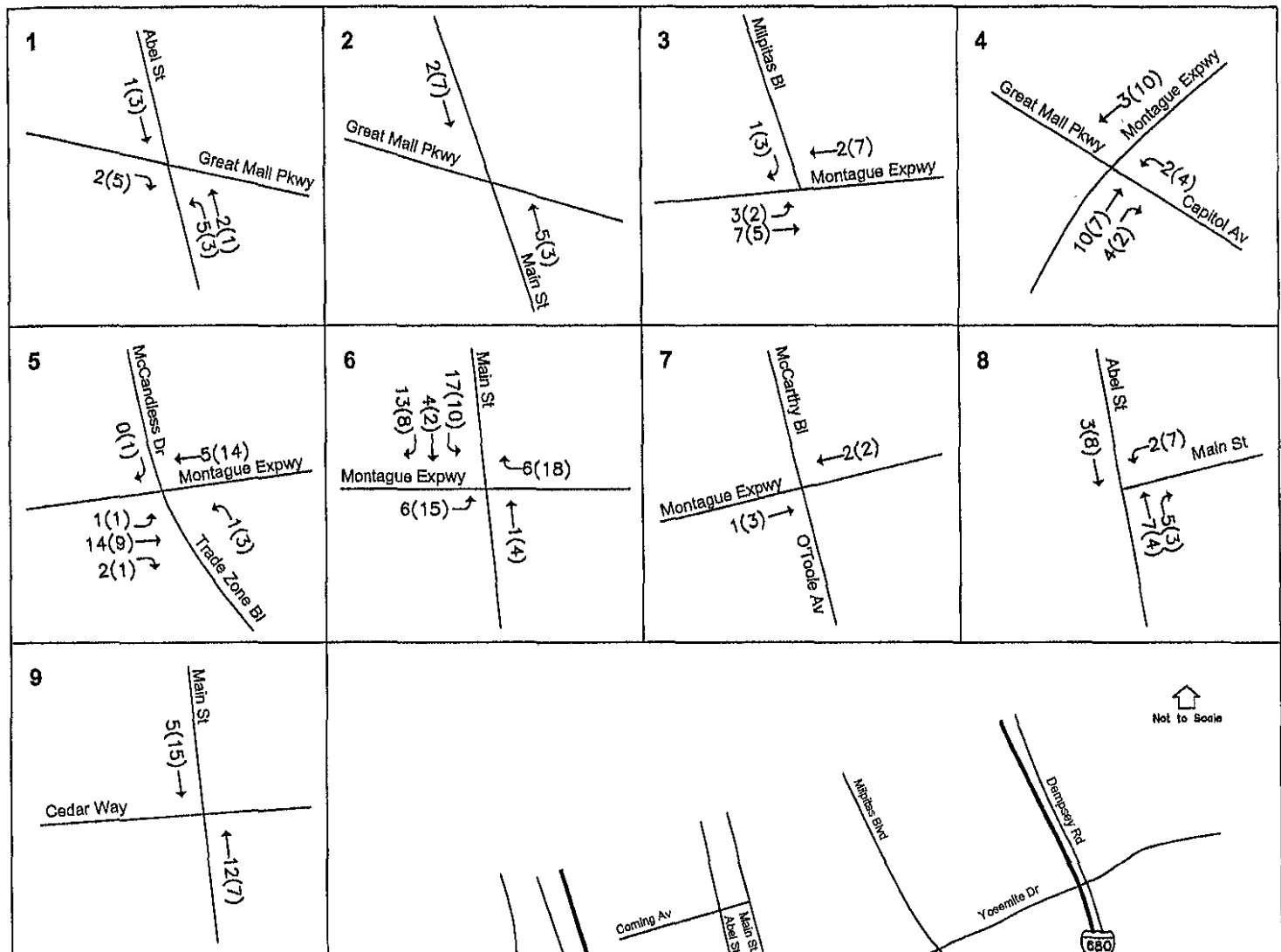
# LEGEND

- \* = Site
- = Study Intersection

Figure 8

## PROJECT TRIP DISTRIBUTION

Milpitas Senior Housing

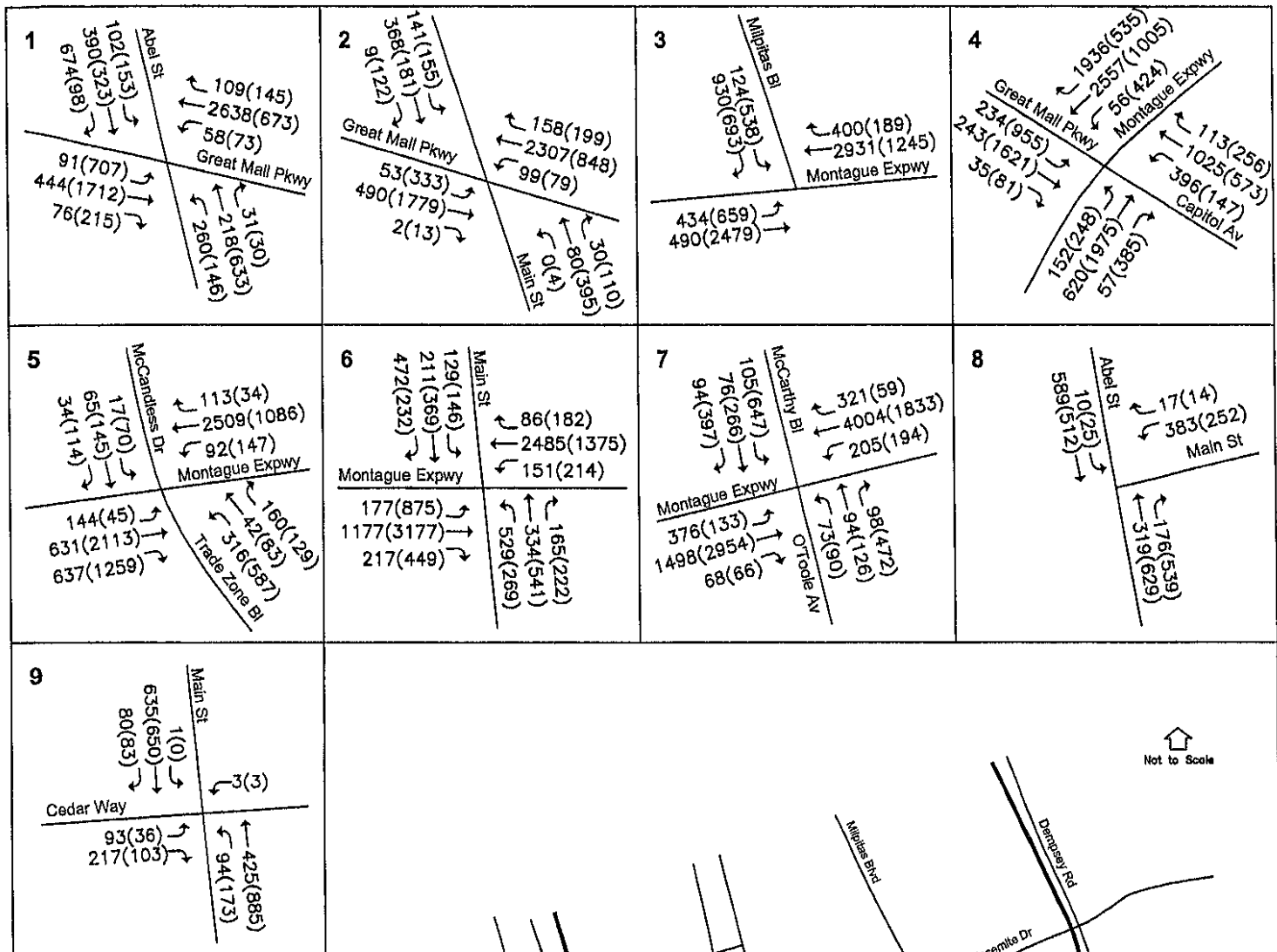


Not to Scale

## LEGEND

XX(XX) = AM(PM) Peak Hour Volumes

Figure 9



## LEGEND

XX(XX) = AM(PM) Peak Hour Volumes

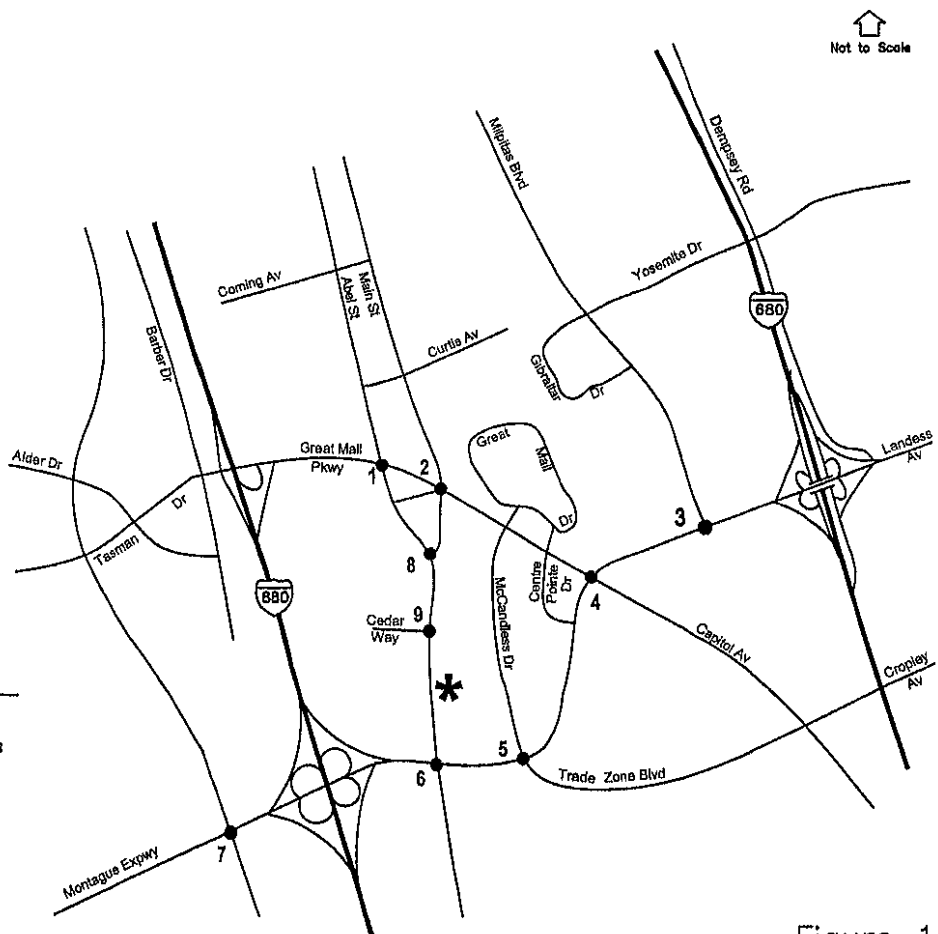


Figure 10

# BACKGROUND PLUS PROJECT TRAFFIC VOLUMES

**Table 7**  
**Project Condition Levels of Service**

Intersection	Peak Hour	Background		Project Conditions			
		Ave. Delay	LOS	Ave. Delay	LOS	Incr. In Crit Delay	Incr. In Crit V/C
South Abel Street and Great Mall Parkway	AM	78.3	E	79.2	E	1.4	0.003
	PM	29.3	C	29.4	C	0.0	0.001
South Main Street and Great Mall Parkway	AM	19.9	B	19.9	B	0.0	0.001
	PM	34.5	C	34.5	C	0.1	0.001
South Milpitas Boulevard and Montague Expressway <sup>1,2</sup>	AM	76.8	E	76.9	E	0.3	0.001
	PM	41.7	D	41.9	D	0.4	0.003
Great Mall Parkway/East Capitol Avenue and Montague Expressway <sup>1</sup>	AM	163.9	F	163.9	F	0.0	0.000
	PM	188.3	F	188.3	F	0.0	0.001
McCandless Drive/Trade Zone Boulevard and Montague Expressway <sup>1</sup>	AM	42.1	D	42.2	D	0.0	0.002
	PM	81.1	F	81.3	F	0.2	0.004
South Main Street/Oakland Road and Montague Expressway <sup>1</sup>	AM	76.3	E	78.1	E	2.9	0.006
	PM	76.9	E	79.2	E	6.0	0.012
McCarthy Boulevard/O'Toole Avenue and Montague Expressway <sup>1</sup>	AM	40.2	D	40.2	D	0.0	0.000
	PM	97.3	F	97.3	F	0.0	0.000
South Abel Street and South Main Street	AM	13.2	B	13.2	B	0.1	0.004
	PM	8.9	A	8.9	A	0.1	0.005
South Main Street and Cedar Way	AM	15.9	B	15.9	B	0.0	0.002
	PM	13.5	B	13.5	B	0.0	0.005

1. Denotes CMP Intersection.

2. Assumes Improvement.

As mitigation for the project's "cumulative impacts" on existing deficient intersections, the City of Milpitas requires projects to pay their "fair share" of the traffic improvement costs. Currently, the City and County have plans to widen Montague Expressway. Since the proposed project would contribute traffic to deficient intersections on Montague Expressway, it will be required to make a monetary contribution toward the Montague improvements. Also, the project shall comply with the Montague Expressway widening project.

## North San Jose Deficiency Plan Impacts

The impacts of the proposed project were also evaluated using the North San Jose Plan (NSJDP) criteria. To remain consistent with NSJDP methods, only San Jose's approved trips were used in the background condition calculation. Under background conditions, the 22-intersection average delay was 67 seconds using TRAFFIX software. With the addition of project traffic, the 22-intersection average would remain at 67 seconds. This information is summarized on Table 8. The related level of service calculations are contained in Appendix C. According to the NSJDP impact criteria, the proposed development would not impact North San Jose, and therefore, mitigation would not be required.

**Table 8**  
**North San Jose Deficiency Plan Intersection Levels of Service**

Intersection	Background		Project	
	Avg. Del/b/	LOS	Avg. Del/b/	LOS
SR 237/North First Street (N)	113 /c/	F	113 /c/	F
SR 237/North First Street (S)	64	F	64	F
North First Street/Trimble Road	46	E	46	E
North First Street/Brokaw Road	77	F	77	F
I-880/North First Street (N)	13	B	13	B
I-880/North First Street (S)	13	B	13	B
SR 237/Zanker Road (N)	10	B	10	B
SR 237/Zanker Road (S)	13	B	13	B
Zanker Road/Trimble Road	101	F	101	F
Zanker Road/Brokaw Road/a/	33	D	33	D
Montague Expressway/North First Street	233	F	233	F
Montague Expressway/Zanker Road /a/	51	E	51	E
Montague Expressway/Trimble Road/a/	285 /c/	F	285 /c/	F
Montague Expressway/McCarthy Boulevard	65	F	65	F
Montague Expressway/Old Oakland Road	121	F	127	F
Montague Expressway/Trade Zone Boulevard	71	F	71	F
Trimble Road/De La Cruz Boulevard /a/	30	D	30	D
U.S. 101/Brokaw Road	19	C	19	C
I-880/Brokaw Road (W) /a/	24	C	24	C
I-880/Broakw Road (E)	12	B	12	B
Brokaw Road/Old Oakland Road	36	D	36	D
Murphy Avenue/Lundy Avenue	31	D	31	D
Average	67	F	67	F

/a/ With planned improvements included under background and project scenarios.

/b/ Whole intersection wighted average stopped delay expressed in seconds per vehicle.

/c/ Delay capped at 150 % of signal cycle length (per Deficiency Plan for NSJ)

## Offsite Pedestrian and Bicycle Impacts

Existing bicycle and pedestrian access to the site is provided by a series of sidewalks, crosswalks, and bike lanes on Great Mall Parkway and Main Street. Bikes are also permitted to use the shoulder area of Montague Expressway. Although the proposed development would increase the demand for these facilities, the existing facilities would be adequate under project conditions.

## Transit Impacts

The current transit service in the project vicinity consists of three VTA operated bus routes and several bus stops on Great Mall Parkway and Main Street. Field observations have shown that these facilities operate within capacity. Although the proposed project would increase the demand for such facilities in the vicinity of the site, the addition on these trips would not result in a demand for transit service greater than what is currently being provided.

In the future, residents of the proposed project would reside approximately one-half mile from the Tasman east light rail station at the Great Mall of the Bay Area. The light rail station and its companion bus transfer station are operating today. These improvements would increase the likelihood that the future residents of the proposed project would ride transit. However, the incremental impact of this project on system-wide ridership would be minimal.

## Site Access, Circulation, and Parking

This section describes the site access, circulation, and parking aspects of the proposed residential project. This review is based on a project plan supplied to Hexagon on July 2, 2004.

### Site Access

The proposed plan shows three project driveways. One project driveway would connect to Montague Expressway and be designated for emergency vehicles only. The other two driveways would be located on South Main Street and would serve day to day traffic. Both of these driveways would be at least 25 feet wide, contain two lanes, and provide both inbound and outbound access. The maximum number of outbound trips at either driveway would be approximately 32 during the peak hour. To facilitate left turns, a two-way center left-turn lane is provided on South Main Street along the project frontage. Based on the estimated peak hour traffic volumes from the site, the proposed access points would be sufficient to accommodate project traffic. Both driveways would operate with little delay during most periods of the day. During peak hours, outbound left turns would be difficult to execute and the delays experienced by vehicles significant. However, due to the low traffic volumes at the driveway, the vehicle queues would rarely exceed one or two vehicles during peak times. For this reason, the storage space provided at each driveway would be adequate.

The southern driveway on South Main Street would be located approximately 330 feet north of Montague Expressway (measured from the northern face of curb on Montague Expressway to the centerline of the driveway). The northern driveway would be located approximately 175 feet north of the southern driveway (measured centerline to centerline). The spacing of these driveways is sufficient given the projected traffic volumes.

The current plan shows flattened curb at the intersection of the project driveways and South Main Street. Given the design speed and traffic volumes on South Main Street, the lack of curb radii would require vehicles to slow to very low speeds to enter the site and increase the difficulty of completing the turn within the designated approach and receiving lanes.

*Recommendation:* The project driveway design should comply with City of Milpitas standard design drawings.



## ***Site Circulation***

The site's street layout would consist of three primary roads. Two roadways would run east/west and link the project driveways on South Main Street to parking areas. One roadway would run north/south between Montague Expressway and northern-most roadway. This roadway would connect the apartment and senior housing sites. All parking spaces would be 90 degree and some of the parking provided would be tandem. This is inconsistent with City of Milpitas standards for parking space design. All project drive aisles would be 25 feet wide or greater.

The plan shows several dead-end aisles. The dead-end aisles range in length from approximately 100 feet to 240 feet and serve private residences. Since most parking spaces in the dead-end aisles are assigned, providing space for guests to turn-around is not a concern. At the eastern-most dead-end aisle, a turn around is provided. Generally, turn-arounds should be provided in residential developments when needed for emergency vehicles, garbage collection, or visitor parking.

WB-40 truck templates were used to evaluate onsite truck access and circulation. Large trucks would be able to traverse most of the site's main roadways. Moving trucks would benefit from access to Montague Expressway or would face considerable back-up distances. For moving trucks and fire trucks to access the southern driveway from northbound South Main Street, they would be required to occupy the entire northbound traveled way on South Main Street. This is due to the "S" curve alignment of the driveway. However, relative to typical passenger vehicle trips, large truck trips would be infrequent.

Two onsite pedestrian paths are shown to connect to the public sidewalk on South Main Street. Bikes would be required to share the site's internal roadways with vehicular traffic. The speeds and traffic volumes on these streets would be conducive to this.

## ***Parking***

The proposed project should demonstrate it would comply with the City of Milpitas Parking Code or demonstrate that it would provide sufficient parking. According to the City Code, tandem spaces will not be counted as part of the parking requirement.

## 5.

# Future Growth and Cumulative Conditions

---

This chapter presents a summary of the traffic conditions that would occur under future growth conditions. The purpose of analyzing future growth conditions is to assess the traffic conditions that would occur at the time that the proposed development becomes occupied. For this analysis, the assumed occupancy date is late 2005. The analysis of future growth conditions is required by the CMP. The proposed project is consistent with the City's *Midtown Specific Plan*, which evaluated year 2015 impacts on the transportation system. Therefore, no additional analyses of year 2015 impacts and mitigations are needed.

All of the roadway improvements that were assumed to be completed under project conditions were also included under future growth conditions. However, future growth conditions do not include implementation of the project mitigation measures. Thus, the intersection lane configurations under future growth conditions were assumed to be the same as described under project conditions. Traffic volumes under future growth conditions were estimated by applying to the existing volumes an annual growth rate of two percent, then adding the trips from approved developments and the project trips. This growth rate has been the standard in the City of Milpitas and has been used in nearly every previous traffic report.

The level of service results for the study intersections under future growth conditions are summarized in Table 9. The results show that, measured against the appropriate level of service standards, the following intersections would operate at unacceptable levels:

- South Main Street/Oakland Road and Montague Expressway
- South Abel Street and Great Mall Parkway
- South Milpitas Boulevard and Montague Expressway
- Great Mall Parkway/East Capitol Avenue and Montague Expressway
- McCandless Drive/Trade Zone Boulevard and Montague Expressway
- McCarthy Boulevard/O'toole Avenue and Montague Expressway

The future growth traffic volumes and the intersection level of service calculations are included in Appendix B.

**Table 9**  
**LOS Under Future Growth Conditions**

Intersection	Peak Hour	Ave. Delay	LOS
South Abel Street and Great Mall Parkway	AM	90.2	F
	PM	30.2	C
South Main Street and Great Mall Parkway	AM	20.2	C
	PM	35.0	C
South Milpitas Boulevard and Montague Expressway <sup>1,2</sup>	AM	83.5	F
	PM	44.4	D
Great Mall Parkway/East Capitol Avenue and Montague Expressway <sup>1</sup>	AM	174.2	F
	PM	198.4	F
McCandless Drive/Trade Zone Boulevard and Montague Expressway <sup>1</sup>	AM	44.6	D
	PM	88.3	F
South Main Street/Oakland Road and Montague Expressway <sup>1</sup>	AM	84.5	F
	PM	87.8	F
McCarthy Boulevard/O'Toole Avenue and Montague Expressway <sup>1</sup>	AM	42.0	D
	PM	104.1	F
South Abel Street and South Main Street	AM	13.3	B
	PM	9.0	A
South Main Street and Cedar Way	AM	16.0	B
	PM	13.7	B

1. Denotes CMP intersection.

2. Assumes Improvement.

## 6. Conclusions

---

The proposed project's impacts were evaluated in accordance with Congestion Management Program, City of Milpitas, and City of San Jose guidelines at 9 intersections during the AM and PM peak commute hours. The signalized intersections were evaluated using the *2000 Highway Capacity Manual* methodology and TRAFFIX software.

**Trip Generation.** The trip generation rates used were those published by the San Diego Association of Governments (SANDAG) for apartment and senior housing uses. It was estimated that the project would generate 64 AM peak hour trips and 79 PM peak hour trips. The proposed project's trip distribution pattern was estimated based on previous traffic impact analyses. The trips generated by the proposed development were then assigned to the roadway network based on this directional distribution.

**Intersection Impacts and Mitigation.** The proposed project would not result in any significant impacts at the study intersections. However, the project would add traffic to four intersections that are operating at unacceptable levels under background conditions. To account for the cumulative impacts of new development traffic on existing deficient intersections, the City of Milpitas requires projects to pay their "fair share" of the traffic improvement costs. Currently, the City and County have plans to widen Montague Expressway. Since the proposed project would contribute traffic to deficient intersections on Montague Expressway, it would be required to make a monetary contribution toward the Montague improvements. Also, the project shall comply with the Montague Expressway widening project.

**Impacts to Alternative Modes.** The proposed project's impacts to existing bicycle, transit, and pedestrian facilities were also evaluated as part of this study. Although the development would increase the demand for such facilities, it would not result in any adverse significant impacts.